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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/889,666
Filing Date: September 25, 2001
Appellant(s): KODES, RUDOLF

Thomas McKiernan (#37,889)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on September 3, 2008 appealing from the Office action mailed on April 7, 2008.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) *Status of Claims*

The statement of the status of claims contained in the brief is correct.

(4) *Status of Amendments After Final Rejection*

The appellants' statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Claimed Subject Matter*

The summary of claimed subject matter contained in the brief is correct except for the introduction of "cause-and-effect relationship", not found in the original application, originally filed claims or the related international application.

(6) Grounds of Rejection to be reviewed on Appeal

The appellants' statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

U.S. Patent 5,303 to **Valko** of April 1994.

U.S. Patent 6,278,977 to **Agrawal et al.** of August 2001.

(9) Grounds of Rejection

The following detailed grounds of rejection are applicable to the appealed claims:

112 First Paragraph Rejections

Claims 5-7, 9, 11 and 20-21 are rejected under 35 U.S.C. 112 First Paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(9.1) Claim 21 states in part, "preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship". The specification does not describe anywhere connecting the first event of the

engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship. The cause-and-effect relationship between the activities is not described anywhere in the specification. Therefore, claim 21 has no support in the specification.

Claims 5-7, 9, 11 and 20 are rejected because of their dependence on rejected claims.

102 Rejections

Claims 5-7, 11 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by **Valko** (U.S. Patent 5,303,170).

(9.2) **Valko** teaches system and method for process modeling and project planning.

Specifically, as per claim 21, **Valko** teaches a (processing) method (for an engineering activity) (CL1, L7-8 L1-9; CL1, L10-18; CL1, L35-37; CL2, L43-64), comprising:

modeling an engineering activity having a plurality of interrelated events with relationships defined between the events (Fig. 1; CL1, L10-18; CL1, L51-53; CL2, L43-64; CL3, L27-31; CL3, L43-45);

displaying the model of the engineering activity with all relationships being shown (Fig. 1; CL3, L27-31; Fig. 9, Item 906; CL3, L43-465);

selecting a first event of the engineering activity using a graphical user interface (CL2, L43-47; CL14, L48-49; Fig. 9, Items 602 and 906: it is inherent that such computer systems are

provided with graphical user interface; See Agrawal et al. (U.S. Patent 6,278,977): CL3, L24-29);

preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship (Fig. 1, A to B; B to C, D and E: Cause-and-effect relationship is interpreted as predecessor/successor relationship CL2, L51-54; CL3, L43-45);

determining at least one third event of the engineering activity from the set of second events (Fig. 1, D to F);

preparing at least one second connection to connect the at least one third event to the first event in a predecessor/successor relationship (Fig. 1, F to B); and

displaying the first event together with connections selected from the group consisting of the first connections and the at least one second connection, the first event and the connections being displayed without displaying any relationship unless the relationship is defined by a first or second connection (Fig. 1, First event = B; First connection = B to D; Second connection = F to B).

Per claim 5: **Valko** teaches that the events have a predecessor/successor relationship with respect to one another (CL2, L43-47; CL2, L51-54; CL2, L61-64).

Per claims 6 and 7, **Valko** teaches that the first event precedes the third event in the predecessor/successor relationship; the third event succeeds the first event in the predecessor/successor relationship (Fig. 1, B to F).

Per claim 11: **Valko** teaches that the graphical representation is effected by means of actuation using a context-sensitive menu (CL2, L43-47; Fig. 9, Items 602 and 906: it is inherent that such computer systems are provided with graphical user interface which provide context-sensitive menu; See Agrawal et al. (U.S. Patent 6,278,977): CL3, L24-29).

103 Rejections

Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Valko** (U.S. Patent 5,303,170) in view of **Agrawal et al.** (U.S. Patent 6,278,977).

(9.3) As per claims 9 and 20, **Valko** does not expressly teach that the events have associated information generated as results of the activities. **Agrawal et al.** teaches that the events have associated information generated as results of the activities (CL7, L57-59). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **Valko** with the method of **Agrawal et al.** that included the events having associated information generated as results of the activities, because that would allow the methodology to automatically derive and steadily improve the process model and project planning (Abstract, L3-9).

(10) Response to Argument

Appellants' arguments filed with respect to claims 5-7, 9, 11 20 and 21 in the Appeal Brief have been fully considered and they are not persuasive. Examiner submits to the Board that the rejections applied are proper and should be maintained.

(10.1) Response to Appellants' Arguments regarding claim rejections under 35 U.S.C. §112 First Paragraph, 35 U.S.C. §102 (b) and §103 (a)

(10.1.1) The specification describes connecting the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship

Appellants' Arguments

The Examiner asserts that the specification does not describe anywhere connecting the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship; the cause-and-effect relationship between the activities is not described anywhere in the specification; Fig. 1, to the contrary, indicates that a predecessor (activity 101) leads to a successor (result 102); connections are shown being prepared to connect a first event of an engineering activity 101 to a set of second events of the engineering activity 101; as described at page 3, lines 2-8 of the English translation of the International Application PCT/DE00/00075, a copy of which was filed originally with the application:

the units can represent activities and/or results of these activities. A connection of

activities and results such that orientation occurs from which it is apparent, inter alia, that an activity leads to a result and this result, if appropriate, again permits another activity is particularly advantageous.

One of skill in the art would understand that an activity that leads to a result is substantially a cause of the result. Conversely, the result is an effect of the activity, and the International Application describes a cause-and-effect relationship between activities and results.

Moreover, as described further in the International Application at page 3, lines 8-12:
In this way, a flowchart of activities which bring about results is produced, the wide variety of activities being able to act on a single event, and an event being able to be a precondition for a multiplicity of activities.

Since activities which bring about results are represented on a flowchart, one of skill in the art would understand that an activity that brings about a result is substantially a cause of the result. Conversely, the result is an effect of the activity, and the International Application describes a cause-and-effect relationship between activities and results.

Furthermore, an event which is a precondition of an activity might be said to be a cause of the activities, while the activity might be said to be an effect of the event.

Moreover, as described further in the International Application at page 3, lines 13-19:
It is to be noted here that in a complex technical system an unwieldy "network-like" representation quickly results from the mutual dependencies between activities and results (specific activities usually being permissible only after

specific results which themselves in turn required other activities).

Since specific activities are permissible only after specific results, which themselves in turn required other activities, one of skill in the art would understand that an activity that is required by a result is substantially a cause of the result. Conversely, the result is an effect of the activity, and the International Application describes a cause-and-effect relationship between activities and results.

Moreover, as described further in the International Application at page 5, lines 11-15:

If, for example, it is assumed that the units are embodied as activities and results, it is in particular interesting to determine which result directly follows which activity, and/or which results directly precede the activity.

Since the units, i.e. the events, are embodied as activities and results, and a result directly follows from an activity, one of skill in the art would understand that an activity is substantially a cause of the result. Conversely, the result is an effect of the activity, and the International Application describes a cause-and-effect relationship between activities and results.

Moreover, as shown in Fig. 3 and as described in the International Application at page 7, lines 4-9:

It is apparent that activities 301, 302, 303 and 304 follow the result 102, the activity 301 giving rise to a result 305, the activity 302 giving rise to a result 306, the activity 303 giving rise to a result 307 and the activity 304 giving rise to results 308, 309 and 310,

Since the activity 301 gives rise to the result 305, one of skill in the art would understand that the activity 301 is substantially a cause of the result 305. Conversely, the result 305 is an effect of the activity 301, and the International Application describes a cause-and-effect relationship between activities and results.

Explicit support for claim language, moreover, is not required. It is well-settled, rather, that the test for compliance with the description requirement is whether a person skilled in the art would reasonably conclude from the disclosure whose filing date is being relied on that the inventor had possession, as of the filing date, of the claimed invention. How the disclosure accomplishes this fact is unimportant. The lack of literal basis in the specification for a negative limitation may not be sufficient to establish a prima facie case for lack of descriptive support.

Examiner's response

The Examiner takes the position that what the applicant has shown in Fig. 1, Fig. 2 and Fig 3 of the application are activity networks connecting various activities.

The specification describes at Para 003, engineering process having units having relationships; at Para 006, a first unit, a set of second units and a third unit; a second unit connected to a first unit; a third unit determined from the second units, which has a relationship with the first unit; at Para 0011, that **the third unit can be a predecessor or successor of the**

first unit; at Para 0013, that units represent activities or results of the activities; a set of activities being able to act on an event; an event being a precondition for a plurality of activities; at Para 0031, that units are embodied as activities or results; at Para 0033, that **activities have direct predecessors and direct successors**; the predecessor results are illustrated; at Para 0035, that **connection criteria includes predecessors and successors**; units of different type are results and activities; at Para 0037, selecting a plurality of first units for which third units are determined from second units; at Para 0038, results are selected and all the following activities are determined; **results being predecessors of activities; activities give rise to results.**

Based on the above description, it is clear that the engineering process comprises of numerous activities; the activities have predecessors and successors. Therefore, the activities are connected in a predecessor/successor relationship. Since the specification does not describe the cause-and-effect relationship, but describes the predecessor/successor relationship, **the Examiner has interpreted the cause-and-effect relationship to be same as the predecessor/successor relationship.**

The relationship between the predecessors and successors is not described in the specification as cause-and-effect relationship. None of the references mentioned in the English translation of the International Application PCT/DE00/00075 describe cause-and-effect relationship.

The Examiner takes the position that the applicant simply argues the cause-and-effect relationship which is not in his specification or in the International Application. The applicant

describes the relationship between different activities connected by the activity network as a “**cause-and-effect relationship**” in his arguments, while it is not described so in the specification. Irrespective of how the applicant argues the relationship between activities in the activities network, the results, units and activities of the network are not affected. It is still only a predecessor successor relationship. One of ordinary skill in the art would not understand and would not conclude the predecessor-successor relationship to be a cause-and-defect relationship.

(10.1.2.) Claims are not anticipated by Valko

Appellants' Arguments

Independent claim 21 is not anticipated by Valko because Valko fails to disclose all of the features of independent claim 21. Valko discloses no preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship; Valko is determining the availability of alternative resources required before an activity can commence, not causes for the activity; since Valko defines alternative resources required to commence an activity, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship; in Valko successors to starting an activity are signaled when a set of prerequisites necessary to start an activity are present; prerequisites are not causes; there is no cause-and-in effect relationship between the activity and the prerequisites to starting the activity, or between the successors to starting the activity and the activity; the activity and the

successors to starting the activity are just waiting to see when the prerequisites to starting the activity are present; since, in Valko, successors to starting an activity are signaled when a set of prerequisites necessary to start an activity are present, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship.

Examiner's response

Attention is directed to Examiner's response to "cause-and-effect relationship" argument, presented in Paragraph 10.1.1 above.

In addition, in the applicant's activity network of Fig. 2, there are numerous resources, Items 201 to 212 required for performing the activity 101, check and modify arrangement plan of the tender. Therefore, the availability of these resources is signaled to the activity 101 in Fig. 2 of the applicant's invention. The use of resources as precondition for an activity and signaling the presence of the resources are in Applicant's Fig 2 and Fig. 3. All the dotted lines feeding into start of an activity are signaling the presence of resources required for starting that activity in the applicant's Fig. 2 and Fig. 3. The Applicant has exactly the same activity model as Valko reference.

(10.1.3) In Valko each activity may have one or more signal lines connecting it to other activities; so it does not have a cause-and-effect relationship

Appellants' Arguments

In Valko each activity may have one or more signal lines connecting it to other activities in the network or to itself in a feedback loop; feedback is gathered after the activity takes place, and is thus not causation; since, in Valko, each activity may have one or more signal lines connecting it to other activities in the network or to itself in a feedback loop, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship.

Examiner's response

Attention is directed to Examiner's response to "cause-and-effect relationship" argument, presented in Paragraph 10.1.1 above.

Specification Page 1, Para 006 states, a first unit is connected to a set of second units in a predefined fashion; at least one third unit is determined from the set of second units, which has a relationship with the first unit; Page 2, Para 0011 states that **the at least one third unit can be a predecessor or successor of the first unit**. The Examiner takes the position that if the third unit that follows the second unit that follows the first unit is the predecessor of the first unit, then there is a feedback loop from the third unit to the first unit.

(10.1.4) The model waits for signals from some number of prerequisites to start an activity; so it does not have a cause-and-effect relationship

Appellants' Arguments

In Valko, the model waits for signals from some number of prerequisites to start an activity; the activity is going to start, the model is just waiting to see when the prerequisites to starting the activity are present; since, in Valko, the model waits for signals from some number of prerequisites to start an activity, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship.

Examiner's response

Attention is directed to Examiner's response to "cause-and-effect relationship" argument, presented in Paragraph 10.1.1 above.

The Examiner takes the position that in Fig. 2 of the application, the activity 101, check and modify arrangement plan of tender, waits for the resources 201 to 211 to be present. Only when these resources are available the activity 101 can occur. The applicant may choose to call the units 201 to 212 as results, but one of ordinary skill in the art will conclude that these are the resources required for performing activity 101. In the applicant's Fig. 2, activity 101 waits for the results or resources 201 to 212 to be present, for the start of the activity. If these resources are not present, activity 101 cannot occur. In Fig. 3 of the application the activities 301 to 304 wait for the resources fed into the small circles at the start of the arrows representing the activities. The Examiner interprets this to mean that the activities are waiting for the resources fed into the small circles at the start of the activity arrows.

(10.1.5) The network of Valko is made up of a plurality of activities selectively connected with one another by signal lines; so it does not have a cause-and-effect

relationship

Appellants' Arguments

The network shown in Fig. 1 of Valko is made up of a plurality of activities 102- 112 selectively connected with one another by way of signal lines, not in a cause-and-effect relationship; since the network shown in Fig. 1 of Valko is made up of a plurality of activities 102-112 selectively connected with one another by way of signal lines, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship.

Examiner's response

Attention is directed to Examiner's response to "cause-and-effect relationship" argument, presented in Paragraph 10.1.1 above.

The applicant's activity network also uses signal lines to indicate the presence of predecessors to the activity as shown in Fig. 2 and Fig. 3. The signals going from predecessors 201 to 212 in Fig. 2, to the activity 101, that cause the activity 101 start. The applicants have chosen to apply selective ignorance to argue the existence of the cause-and-effect relationship and lack of signals in their activity network and presence of signals in the Valko reference. In Fig. 3 of the application, the predecessors of the activities 301 to 304, viz., the resources feeding into the small circles at the start of the arrows of the activities indicate to the activities the presence of the results. The Examiner interprets the resources feeding into the small circles as sending signals (in computer implementation, an interrupt or a polling has to occur, to verify the

existence of the resources or results) to the activities 301 to 304, so the activities can start executing.

(10.1.6) Neither Valko nor Agrawal disclose connecting the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship

Appellants' Arguments

Neither Valko nor Agrawal disclose preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship; Valko is determining the availability of alternative resources required before an activity can commence, not causes for the activity; since Valko defines alternative resources required to commence an activity, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship; Agrawal starts with a set of unrelated activities, and discovers the real world relationships between them at a later point in time; even if Valko and Agrawal were combined as proposed by the Examiner, the claimed invention would not result.

Examiner's response

Attention is directed to Examiner's response to "cause-and-effect relationship" argument, presented in Paragraph 10.1.1 above.

Art Unit: 2123

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this Examiner's Answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

K. Thangavelu
Examiner
Art Unit 2123

/Paul L. Rodriguez/
Supervisory Patent Examiner,
Art Unit 2123

November 5, 2008

Conferees

Paul Rodriguez
/Paul L. Rodriguez/
Supervisory Patent Examiner, Art Unit 2123

Eddie Lee
/Eddie C. Lee/

Supervisory Patent Examiner, TC 2100